

Title (en)
PROCESS-AWARE ADDITIVE COMPUTER AIDED MANUFACTURING

Title (de)
PROZESSBEWUSSTE RECHNERGESTÜTZTE GENERATIVE FERTIGUNG

Title (fr)
FABRICATION ASSISTÉE PAR ORDINATEUR ADDITIVE SENSIBLE AU PROCESSUS

Publication
EP 4371735 A3 20240717 (EN)

Application
EP 23209776 A 20231114

Priority
US 202217990521 A 20221118

Abstract (en)
Methods, systems, computer-readable media for providing instructions for printing of 3D objects. A computer-implemented method comprises: obtaining i) information regarding one or more geometric features of a three-dimensional (3D) model (104) of an object to be printed by an extrusion-based 3D printer (118) and ii) process parameters for use in printing the 3D object by the extrusion-based 3D printer; generating print instructions for the printing of the 3D object by the extrusion-based 3D printer in a series of multiple layers, wherein modified process parameters are generated as part of the print instructions by modifying the obtained process parameters for a proper subset of layers based on the information regarding the one or more geometric features of the 3D model of the object; and providing the print instructions comprising the modified process parameters to operate the extrusion-based 3D printer to print the object.

IPC 8 full level
B29C 64/118 (2017.01); **B22F 10/18** (2021.01); **B22F 10/85** (2021.01); **B29C 64/393** (2017.01); **B33Y 10/00** (2015.01); **B33Y 50/02** (2015.01)

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B22F 10/18 (2021.01 - EP); **B22F 10/385** (2021.01 - EP); **B22F 10/85** (2021.01 - EP); **B29C 64/118** (2017.08 - EP US); **B29C 64/393** (2017.08 - EP US); **B33Y 10/00** (2014.12 - EP); **B33Y 30/00** (2014.12 - US); **B33Y 50/02** (2014.12 - EP US); **G06T 17/00** (2013.01 - US)

Citation (search report)
• [XAI] US 2019361426 A1 20191128 - CONNOR STEPHEN T [US], et al
• [A] WO 2021237016 A1 20211125 - CHROMATIC 3D MAT INC [US]

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4371735 A2 20240522; **EP 4371735 A3 20240717**; CN 118056668 A 20240521; US 2024165883 A1 20240523

DOCDB simple family (application)
EP 23209776 A 20231114; CN 202311533937 A 20231117; US 202217990521 A 20221118